

STUDIES IN THE HELIANTHEAE (ASTERACEAE). XXIII.

NEW ANDEAN SPECIES OF *VERBESINA* AND *VIGUIERA*.

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The following three species of Andean Heliantheae cannot be matched with previously described members of their genera. The three are described here so that material can be labelled and the names can be available.

*Verbesina barclayae* H. Robinson, sp. nov.

Plantae fruticosae ca. 1 m altae multo ramosae. Caules teretes leniter striati fulvescentes minute strigulosi. Folia opposita subsessilia, petiolis ca. 1 mm longis dense strigulosis; laminae oblongo-ellipticae plerumque 2.0-3.5 cm longae et 1.0-1.6 cm latae base late cuneatae vel anguste rotundatae margine superne pauce serrulatae apice obtusae vel breviter acutae supra et subtus scabridulae subtus in nervis primariis strigulosi, nervis secundariis pinnatis utrinque ca. 4 arcuatis mediocriter distinctis. Inflorescentiae in ramis elongatis terminales univel pauci-capitatae; pedicellis plerumque 1-3 cm longis dense hispidulis. Capitula late campanulata ca. 10-13 mm alta et 10-15 mm lata. Squamae involucri ca. 25 atro-virides ca. 2-seriatae subaequilongae anguste oblongae 6-9 mm longae et 1.5-2.5 mm latae apice obtusae vel breviter acutae margine et extus dense minute puberulae vel scabridulae. Paleae squamis involucri similes atro-virides apice breviter acutae. Flores radii 10-13 in capitulo fertiles; corollae flavae ca. 21 mm longae, tubis ca. 5 mm longis dense hispidulis, limbis oblongis ca. 16 mm longis et ca. 5 mm latis apice minute inaequaliter trilobatis extus plerumque glabris inferne sparse puberulis; achaenia radii immatura ca. 4 mm longa plerumque in marginem sparse minute spiculifera lateraliter pauce longe setifera; pappus subnullus. Flores disci ca. 40; corollae flavae ca. 7 mm longae, tubis ca. 2 mm longis dense hispidulis, faucibus ca. 3.5 mm longis inferne hispidulis superne glabris, lobis oblongis ca. 1.5 mm longis et 0.9 mm latis intus ad marginem dense papillosis extus sparse breviter setiferis; filamenta in parte superiore ca. 0.4 mm longa; thecae ca. 2.5 mm longae nigrae; appendices antherarum ca. 0.6 mm longae et 0.4 mm latae pallidae extus glabrae; achaenia ad 5 mm longa et 2 mm lata superne sparse minute spiculifera lateraliter pauce longe setifera; pappus plerumque biaristatus, aristis ad 3 mm longis. Grana pollinis ca. 35  $\mu$ m in diam.

TYPE: ECUADOR: Azuay: 30 km S of Cumbe on the road to

Saraguro at an elevation of 9800 ft. Shrub 1 m tall. Florets yellow; anthers black. 26 Jan. 1979. *R. M. King & F. Almeda 7809* (Holotype, US). PARATYPE: ECUADOR: Azuay-Loja: Nudo de Cordillera Occidental y Cordillera Oriental entre Oña y Rancho Ovejero. Between Cumbe (2704 m) and cerca 2800 m., on south-bound road. On dry slopes with mostly low shrubs and ferns. Herb to 0.5 m tall. Leaves rough both sides, to 3.5 X 1.5 cm. Stems red brown, heads single on stem, involucre green-hairy, bracts rounded. Ligul. fls. yellow, wide; disc fls. yellow. 1-2 Aug. 1959. *H. G. Barclay & P. Juañibioy 8450* (US).

The distinctions of the species are discussed below under *Verbesina kingii* new species. The type specimen of *Verbesina barclayae* has disk achenes with aborted aristae.

*Verbesina kingii* H. Robinson, sp. nov.

Plantae fruticosae usque ad 1.5 m altae pauce ramosae.

Caules teretes leniter striati fulvescentes minute puberulae. Folia opposita sessilia; laminae oblongo-ellipticae 5-13 cm longae 0.9-3.3 cm latae base leniter auriculatae margine integrae apice argute acutae supra valde scabrae subtus pilosae et in nervis hirsutae, nervis secundariis pinnatis. Inflorescentiae in ramis elongatis terminales corymboso-paniculatae; pedicellis 5-11 mm longis dense puberulis. Capitula 8-9 mm alta ca. 8 mm lata; squamae involucri ca. 25 omnino atro-virides ca. 2-seriatae subaequilongae 5-7 mm longae et 1.5-1.8 mm latae apice obtusae vel breviter acutae margine et extus dense scabridulae; paleae squamis involucri similes apice flavescentes acutae vel vix acuminatae. Flores radii ca. 12 in capitulo; corollae flavae ca. 10 mm longae, tubis ca. 2.5 mm longis extus dense puberulis, limbis obovatis ca. 8 mm longis et 3.5 mm latis apice minute trilobatis extus parce puberulis; achaenia superne sparse puberula; pappus nullus. Flores disci ca. 45; corollae flavae ca. 5 mm longae, tubis ca. 1.5 mm longis extus dense puberulis, faucibus et lobis extus sparse puberulis, lobis ca. 0.7 mm longis et latis; filamenta in parte superiore ca. 0.3 mm longa; thecae ca. 1.8 mm longae nigrae; appendices antherarum ca. 0.4 mm longae base nigrae; achaenia immatura; aristae pappi ca. 2 mm longae. Grana pollinis ca. 27  $\mu$ m diam.

TYPE: ECUADOR: Azuay: along the road to Loja, ca. 6 kms generally SE of Cumbe. Elev. ca. 9600 ft. Uncommon shrubs up to 1½ meters tall, flowers yellow. 4 Feb. 1974. *R. M. King 6700* (Holotype, US).

The two new species both share a general shrubby habit with opposite oblong to elliptical leaves and inflorescences of terminal heads single or in small corymbose panicles. Closest relatives seem to be *Verbesina elegans* H.B.K. of Colombia and *V. (Lipactinia) laevis* Blake from Chachapoyas, Peru. The Colombian species was placed in sect. *Saubinetia* by Blake (1930), and it has alternate leaves, coarse pubescence on the involucre bracts, 6-7 rays and ca. 40 disk flowers in the heads, and dark

anther appendages. The peruvian species is more like the two new species in its opposite leaves, but it lacks rays, having 10-flowered discoid heads. Of the two new species, *V. barclayae* is distinct by the more branched habit, the generally smaller, more serrulate, slightly petiolate, non-auriculate leaves, the scabridulous rather than pilosulous lower leaf surface, the larger often single heads, and the paler anther appendages.

*Viguiera bishopii* H. Robinson, sp. nov.

Plantae suffruticosae ca. 1 m altae laxae ramosae. Caules brunnescentes antrorse appresse strigosi et sparse contorte puberuli. Folia alterna, petiolis plerumque 2-5 mm longis subalatis margine dense pilosis subtus dense strigulosis; laminae lanceolatae plerumque 6-15 cm longae et 1.0-2.5 cm latae base cuneatae margine remote serrulatae vel subintegrae apice anguste acutae supra sparse antrorse strigulosae subtus strigosae in nervis secundariis basilaribus intramarginalibus valde ascendentibus trinervatae. Inflorescentiae laxae ramosae, ramis ultimis plerumque 5-20 cm longis superne sensim dense strigosis vel subhirsutis. Capitula late campanulata ca. 1 cm alta et ca. 2 cm lata. Squamae involucri ca. 25 triseriatae plerumque ellipticae vel obovatae apice longe acuminatae margine inferne dense pilosofimbriatae extus inferne carnose 2-4-costatae superne herbaceae perdense minute strigulosae; paleae plerumque late scariosae apice obtusae vel minute apiculatae breviter rubro-tinctae et dense pilosulae. Flores radii 13-15 in capitulo steriles; corollae flavae, tubis subdistinctis ca. 1 mm longis dense puberulis, limbis oblongis ca. 17 mm longis et 6.5 mm latis extus minute multo glandulo-punctatis plerumque in nervis minute puberulis; achaenia radii longi-setifera; pappus irregulariter squamiformis ad 2 mm longus. Flores disci ca. 130 in capitulo; corollae sordido-flavae ca. 5.5 mm longae, tubis ca. 1 mm longis extus sparse minute strigulosis, faucibus 4.5 mm longis tubiformibus superne leniter infundibularibus extus inferne dense strigulosis, lobis ovato-triangularibus ca. 1 mm longis intus ubique papillois; filamenta in paribus inferioribus laevia in partibus superioribus ca. 0.5 mm longa; thecae ca. 2.3 mm longae nigrescentes; appendices antherarum ovatae ca. 0.7 mm longae et 0.5 mm latae extus glanduliferae; rami stylorum exappendiculati extus superne dense puberuli; achaenia disci valde compressa ad 4.2 mm longa et 1.8 mm lata longe dense setifera; pappus biaristatus ad 5.5 mm longus, squamis irregularibus ad 2.5 mm longis. Grana pollinis ca. 30  $\mu$ m in diam.

TYPE: BOLIVIA: Cochabamba: 5 kms from Parotani, on road to Oruro. 9000 ft. Shrub to 1 m tall, flowers yellow. 2 Feb. 1978. *R. M. King & L. E. Bishop 7574* (Holotype, US). PARATYPE:

BOLIVIA: Cochabamba: near Parotani on the road to Oruro. 8200 ft. Herb to 1 m tall, flowers yellow. 2 Feb. 1978. *R. M. King & L. E. Bishop 7570* (US).

*Viguiera bishopii* is one of the exappendiculate species

which may eventually be placed in a separate genus. The species would key to the series *Aureae* of Blake (1918), and it is most distinct from the related species by the spreading strongly acuminate involucrel bracts having pale densely pubescent bases.

The following new combination is needed for the revised edition of the National List of Scientific Plant Names. Nordenstam (1977) has established the priority of *Psathyrotopsis* Rydb. over *Pseudobartlettia* Rydb., but the necessary combination was not made.

*Psathyrotopsis scaposa* (A.Gray) H. Robinson, comb. nov.

*Psathyrotes scaposa* A.Gray, Pl. Wright., Smithson. Contrib. Knowl. 5 (6): 100. 1853.

#### Literature Cited

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